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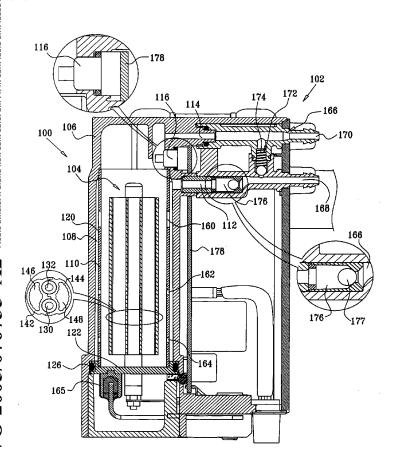
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(54) Title: APPARATUS AND METHOD FOR CLEANING AND DE-ICING



(57) Abstract: A windshield heated liquid spray assembly including a liquid heating assembly and a heated liquid spray assembly operative to spray the heated liquid onto a windshield, the liquid heating assembly including a liquid heating chamber, at least one heating element disposed in the liquid heating chamber and at least one heat dissipator in heat conduction contact with the at least one heating element, the at least one heat dissipator at least partially defining at least one liquid flow channel and being operative to transfer heat from the at least one heating element to the liquid flowing through the at least one liquid flow channel.

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